

SWAN RIVER NATIONAL WILDLIFE REFUGE

Kalispell, Montana

ANNUAL NARRATIVE REPORT

Calendar Year 1999

U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

REVIEWS AND APPROVALS

SWAN RIVER NATIONAL WILDLIFE REFUGE

Kalispell, Montana

National Bison Range Complex
Moiese, Montana

ANNUAL NARRATIVE REPORT Calendar Year 1999

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INTRODUCTION

The Swan River National Wildlife Refuge (NWR), is located in northwest Montana, 38 miles southeast of the town of Creston, in the serene and picturesque Swan Valley Mountain Range. The Refuge was established in 1973 at the request of Montana Senator Lee Metcalf, who often hunted the area and desired to see it preserved. The Refuge was established under the authority of the Migratory Bird Conservation Act. It consists of 1,568 acres, with an additional 210-acre Forest Service in holding that is managed under a Memorandum of Understanding. The refuge boundary lines within the flood plain of the Swan River above Swan Lake and between the Swan Mountain Range to the east and the Mission Mountain Range to the west. The valley was formed when glacial water poured down the steep slopes of the Mission Range into Flathead Lake. The valley floor is generally flat, but rises steeply to adjacent forested mountain sides. Approximately 80 percent of the refuge lies within this valley flood plain, which is composed mainly of reed canary grass. Deciduous and coniferous forests comprise the remaining 20 percent. Swan River, which once meandered through the flood plain, has been forced to the west side of the refuge by past earthquakes and deposits of silt. The result of these geologic events is a series of oxbow sloughs within the refuge flood plain.

The purpose of the refuge is "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." Objects of the refuge are to provide for waterfowl habitat and production and to provide for other migratory bird habitat. The refuge also provides a nesting site for a pair of southern bald eagles and a variety of other avian species. In addition, deer elk, moose, beaver, bobcat, black bear, and grizzly bears are known to inhabit the area. There are no significant developments or facilities on the refuge and present management is directed at maintaining the area in its natural state. The refuge is a satellite unit of the National Bison Range Complex. Day-to-day administration and operations are the responsibility of the on-site Assistant Refuge Manager located at Lost Trail National Wildlife Refuge, Marion, Montana.

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A. HIGHLIGHTS

Nothing to report.

B. CLIMATIC CONDITIONS

Climatic conditions in the Swan Valley were similar to conditions in the Flathead Valley which saw its driest year in 20 years, ending a seven year run of above average precipitation. Temperatures were generally above average throughout the year, with record highs recorded in March, September and November; record lows were recorded in April, June, August and October; June's record low temperature of 26 was a record low for the nation. Snowfall totaled 78.5 inches nearly 50% below the average snow fall of 150+ inches that normally falls in the Swan Valley. 1999's snow fall amounts added to a below average annual precipitation of nearly 3 inches for the year.

C. LAND ACQUISITION

1. Fee Title

There was no land acquisition to the refuge in 1999.

2. Easements

Nothing to report.

3. Other

Nothing to report.

D. PLANNING

1. Master Plan

Nothing to report.

2. Management Plan

Nothing to report.

3. Public Participation

On September 1, Washtak attended a Swan Lake/River "no wake" public meeting. A "no-wake" zone had been considered by the Montana Department of Fish, Wildlife and Parks (FWP) in response to homeowner concerns who lived along the Swan River. After review of the situation the Service provided biological data in support of the "no-wake" zone restriction. The comment period for the FWP Swan Lake/River "no wake" zone proposal ended on October 22. During November, Washtak attended the FWP hearing in Helena, Montana concerning the proposal. The Department approved the proposal and motorized water craft using the river will be restricted to "no wake" speed limits for the first 4.5 miles of the river beginning at the river's mouth.

4. Compliance with Environmental and Cultural Resource Mandates (CECRA)

Nothing to report.

5. Research and Investigations

Nothing to report.

6. Other

Nothing to report.

E. ADMINISTRATION

1. Personnel

The Swan River NWR is a satellite unit of the National Bison Range Complex (NBR), and manned by Assistant Refuge Manager, Ray Washtak, located at Lost Trail NWR, Marion, Montana. Refuge activities such as budgeting, detailed administrative and operational functions are supervised by the Project Leader at NBR.

Shaun Heath EOD'd on May 9 to assist with ongoing programs on "north valley" units including Swan Refuge.

2. Youth Programs

Nothing to report.

3. Other Manpower Programs

Nothing to report.

4. Volunteer Programs

Dick Sherman and three other volunteers completed staining the viewing platform and kiosk. The volunteers also installed interpretive signs, replaced faded refuge boundary signs, and mowed the grass area surrounding the viewing platform during the summer months.

Table 1. Volunteers and volunteer hours for 1999.

Activity	Number of Volunteers	Volunteer Hours
Public Education and Recreation		
Provide Visitor Services		350
Outreach		20
TOTALS		370

5. Funding

Administrative and operational funding for the Refuge is included in the overall annual appropriation of the National Bison Range Complex. Specific funding needs for the Refuge are submitted to the Project Leader via annual work plan requests. See the National Bison Range annual narrative for specific funding details.

6. Safety

Nothing to report.

7. Technical Assistance

Washtak continued in his capacity as an ex-officio member on the Flathead County Weed Board.

8. Other

In June, Washtak met with Mr. Dick Sherman, Lower Swan River Wildlife Protection Association concerning motorboat/jet ski activity on Swan River and potential volunteer activities on Swan River NWR.

Garner gathered information on loon nesting and fall use of the Refuge from the state loon working group.

In August, Craig Daeda, Regional Office surveyor visited the Refuge to assess survey needs for potential contract surveying.

On September 1, Washtak attended a Swan Lake "no wake" public meeting. The comment period for the FWP Swan Lake "no wake" zone proposal ended on October 22. During November, he attended the FWP hearing in Helena, Montana concerning the "no wake" zone proposal. The Department approved the proposal and motorized water craft using the river will be restricted to no wake for the first 4.5 miles of the river beginning at the river's mouth.

F. HABITAT MANAGEMENT

1. General

Nothing to report.

2. Wetlands

Approximately 1,254 acres of the refuge are classified as a wetland/grassland complex. These acres lie within an "alluvial flood plain" adjacent to the south end of Swan Lake. Vegetation is composed primarily of monotypic stands of reed canary grass.

With the exception of a wildlife viewing platform, a culvert under Bog Road in Spring Creek and a staff gauge within the creek, which has been used for recording water flow levels, no other water control structures, facilities or developments exist on the refuge.

Flooding of the Refuge occurs on an annual basis in May, June, and July. Flood water flows into the Refuge from several tributaries: Swan River, Bond Creek, Yew Creek, and Spring Creek. In 1999, warmer than average temperatures early in the year, resulted in increased flows into the Refuge in early April. By mid-May nearly 85% of the Refuge was flooded. Flood water began to recede in early July; by the end of August the Refuge's reed canary grass meadows were nearly dry.

3. Forests

Forested areas comprise approximately 313 acres of the refuge. Wooded tracts lie primarily on the west, south, and southeastern portions of the refuge. Tree species include old growth fir, spruce, cedar, and larch. Large cottonwood trees are found along the banks of the Swan River. All forested units are maintained in their natural state.

4. Croplands

Nothing to report.

5. Grasslands

Nothing to report.

6. Other Habitats

Nothing to report.

7. Grazing

There was no grazing on the Refuge in 1999 due to limited, private grazing activities in the Swan Valley and a subsequent lack of grazing permittees

8. Haying

There was no haying on the Refuge this year. Haying and general ranching activities are limited in the Swan Valley. Ranchers who hay in the Flathead Valley are reluctant to travel the distance to the Refuge making it difficult to find willing permittees. Haying of the dense, monotypic stands of reed canary grass would be beneficial in restoring vegetative quality, as well as providing additional open marsh areas for waterfowl pairs and broods.

9. Fire Management

Nothing to report.

10. Pest Control

Scattered, small patches of spotted knapweed found growing within Bog Road were hand pull this year. Canada thistle growing on the nesting islands were hand chopped in June to reduce the spread of seeds.

11. Water Rights

Nothing to report.

12. Wilderness and Special Areas

Nothing to report.

13. WPA Easement Monitoring

Nothing to report.

G. WILDLIFE

1. Wildlife Diversity

Nothing to report.

2. Endangered and/or Threatened Species

In 1999, the Bald Eagle pair successfully hatched and fledged one eaglet. The eagle pair used the "traditional" nest site located along the Swan River. In cooperation with the Montana Department of Fish, Wildlife and Parks monitoring efforts, we again recorded our periodic observations of the eagles and submitted the annual state bald eagle nesting forms. Since 1987, 21 eaglets have been fledged at the Swan Refuge nest site.

As in past years several "transient" bald eagles were observed utilizing the Refuge as a loafing and feeding site.

3. Waterfowl

a. Ducks

Observed duck pairs increased 268% from 1998 figures.

Duck production figures for 1999 were calculated using a hen productivity rate of 40%, based on data obtained in nest searches on Lake County WPAs supplied by Dr. Joe Ball, Cooperative Wildlife Research Unit, University of Montana. Estimated production was figured by using the formula: number of pairs X 0.4 production X 5.6 average brood size X 0.7 brood survival.

The large increase in estimated production is attributable to the corresponding large increase in observed pairs. The increase in observed pairs may be attributable to the fact the Refuge flooded early this year; thereby enticing early season migrants to utilize the Refuge during the time pair counts were conducted.

Waterfowl use and population estimates on the refuge are based on aerial census flights and random ground counts made in conjunction with ongoing work activities.

Table 2. 1999 Breeding duck pairs and estimated production on Swan River NWR.

Species	Number Breeding Pairs	Estimated Production
Mallard	120	188
Cinnamon Teal	12	19
Green-winged Teal	5	8
Gadwall	2	3
Common Merganser	7	11
Ring-neck	1	1
Common goldeneye	16	25
Wood Duck	15	24
Northern Pintail	1	1
TOTAL	179	280

b. Geese

Canada goose populations figures are based on random observations made in conjunction with ongoing Refuge activities. In addition, an aerial survey is conducted in April (weather dependent) to record pair data, followed by a productivity flight in early June. In 1999, the April pair count survey was not flown due to weather conditions, however random ground counts made in May revealed 37 geese on the Refuge along with 13 goslings. Exact counts as well as productivity counts of all species of waterfowl on the Refuge can be difficult due to high water levels, heavy marsh vegetation and the wide spread inaccessibility of the Refuge.

4. Marsh and Water Birds

Annual flooding on the refuge in the late spring and early summer months provided excellent marsh habitat for sora rails, pied-billed grebes, red-necked and horned grebes, American bitterns, great blue herons, and many other species of marsh and water birds. Populations peak during the mid and late summer months. As cooler weather sets in, birds depart for warmer climates. Nesting probably occurs on the Refuge; however, no formal nesting searches were conducted in 1999.

A young loon was observed by Montana Fish, Wildlife, and Parks biologists in August. Loons are known to nest in the Swan Valley. Nesting has not been documented on the Refuge although the Refuge habitat is excellent for nesting loons. On occasion, the "call of the loon" can be heard reverberating across the lake.

5. Shorebirds, Gulls, Terns and Allied Species

Species utilizing the refuge included California and ring-billed gulls, black tern, Wilson's phalarope, common snipe, American avocet, killdeer, and several species of sandpipers. Populations peak in July and August.

6. Raptors

Coniferous and deciduous forest areas on the refuge continued to offer excellent resting and loafing sites for many raptor species. Northern harriers, Swainson's hawks, red-tailed hawks, and great-horned owls were observed on nearly every visit to the refuge.

7. Other Migratory Birds

As many as 64 species of non-game migratory birds have been observed utilizing the Refuge during the spring, summer, and early fall months. Red-winged blackbirds, common yellowthroat, song sparrows, tree swallows, and common snipe are the most frequently observed species.

8. Game Mammals

The Refuge continues to provide excellent year-round habitat for many indigenous big game mammals. Deer and elk tracks are commonly seen in most upland areas on the Refuge and on Bog Road. Black bear scat has been commonly observed in areas bordered by Nature Conservancy lands. In the late summer and early fall months, cow moose and their calves are often

observed in marshy areas in the northwest corner of the Refuge. Elk are known to winter within the old growth fir and spruce groves.

White-tailed deer are the most commonly observed game mammals.

9. Marine Mammals

Nothing to report.

10. Other Resident Wildlife

Coyotes, beaver, muskrat, and raccoons inhabit the Refuge. Observations were generally made near the river or on backwater sloughs with the Refuge.

11. Fisheries Resources

Game fish common to Swan Lake and portions of Swan River include yellow perch, bull trout, northern pike, kokanee salmon, largemouth bass, cutthroat, brook trout, and mountain whitefish. The entire Refuge, including Spring Creek, is closed to fishermen as part of the annual Refuge closure from March 1 through July 15 (Section H.1.)

12. Wildlife Propagation & Stocking

Nothing to report.

13. Surplus Animal Disposal

Nothing to report.

14. Scientific Collections

Nothing to report.

15. Animal Control

Nothing to report.

16. Marking and Banding

Nothing to report.

17. Disease Prevention and Control

Nothing to report.

H. PUBLIC USE

1. General

Despite the Refuge's generally secluded, out-of-the-way location, lack of established interpretive foot trails and annual flooding, non-consumptive public use of the Refuge continues; however, no accurate count of public visits can be made.

2. Outdoor Classrooms - Students

Nothing to report.

3. Outdoor Classrooms - Teachers

Nothing to report.

4. Interpretive Foot Trails

Nothing to report.

5. Interpretive Tour Routes

Nothing to report.

6. Interpretive Exhibits/Demonstrations

Nothing to report.

7. Other Interpretive Programs

Interpretative signs were installed at the viewing platform and the informational kiosks that were built in 1998. See figures 1 through 4.



Figure 1 This kiosk was built as part of an eagle scout project. Interpretative signs were added to the kiosk in June of this year. RW 6/99.



Figure 2 Viewing platform with interpretative signs installed. RW



Figure 4 Sign on viewing platform.

RW



Figure 3 Interpretative sign on viewing kiosk.

RW

8. Hunting

Approximately 40 percent of the Refuge is open to waterfowl hunting. The majority of the waterfowl hunt area is located north of Bog Road, along portions of the Refuge's lake shoreline and along portions of Swan River in the west and northwest area of the Refuge. Nontoxic shot is required. An estimated 125 hunters visited the Refuge for waterfowl hunting this year.

Big game and upland game bird hunting is prohibited.

9. Fishing

The annual closure period limits spring and early summer fishing activity on the Refuge. After July 15, anglers often venture into Spring Creek looking for pike. Success has always been limited due to heavy vegetation in the creek. The portions of Swan River which flow through the Refuge are open to fishing the entire year. Fishing activity is often limited in the river due to high water levels during the spring and early summer months and low flows in late summer and early fall.

The most popular fishing spot on Swan Lake continued to be at the mouth of Spring Creek just outside the Refuge boundary. Northern pike lie in the reed beds before going upstream to spawn in the dense aquatic vegetation inside the Refuge. Fishermen take advantage of the situation by anchoring just outside the Refuge boundary. Fishing visits to the Refuge were estimated at 250 this year.

10. Trapping

Nothing to report.

11. Wildlife Observation

Nothing to report.

12. Other Wildlife—Oriented Recreation

Nothing to report.

13. Camping

Nothing to report.

14. Picnicking

Nothing to report.

15. Off-Road Vehicle Use

Nothing to report.

16. Other Non-Wildlife Oriented Recreation

Nothing to report.

17. Law Enforcement

Law enforcement efforts are coordinated with Montana Department of Fish, Wildlife and Parks (FWP) wardens. Due to the Refuge' isolated nature and the distance from the administrative headquarters at Lost Trail Refuge, nearly 100 miles away, any LE incidents generally become known well "after the fact," making it difficult to enforce Refuge regulations.

The most common complaint received during the winter months is snowmobile trespass. No citations were issued this year.

18. Cooperating Associations

Nothing to report.

19. Concessions

Nothing to report.

I. EQUIPMENT AND FACILITIES

1. New Construction

Interpretative signs were added to the kiosk (see Sec. H7).

2. Rehabilitation

Nothing to report.

3. Major Maintenance

Nothing to report.

4. Equipment Utilization and Replacement

All equipment utilized on the Refugee is also utilized during, ongoing, daily operations and work activities on Flathead County WPA's and Lost Trail Refuge. See the Lost Trail NWR annual narrative report (1999) for further information.

5. Communications Systems

Nothing to report.

6. Computer Systems

Nothing to report.

7. Energy Conservation

Nothing to report.

8. Other

Nothing to report.

J. OTHER ITEMS

1. Cooperative Programs

Nothing to report.

2. Other Economic Uses

Nothing to report.

3. Items of Interest

Nothing to report.

4. Credits

Ray Washtak supplied information and the final draft for this narrative. Initial drafts, final typing, and compilation was completed by Terri Middlemist at the National Bison Range.

K. FEEDBACK

Nothing to report.

- ▶ Game fish include yellow perch, bull trout, northern pike, kokanee salmon, largemouth bass, cutthroat trout, brook trout and mountain whitefish.
- ▶ A state plant species-of-concern, water howelia (*Howellia aquatilis*) can be found on the Nature Conservancy Preserve that borders the southern edge of the refuge, but the plant has not been confirmed to exist on the refuge to date.

History:

- ▶ The refuge was established in 1973 under authority of the Migratory Bird Conservation Act, at the request of Montana Senator Lee Metcalf, who desired to see the area preserved.
- ▶ The refuge is a statellite unit of the National Bison Range. Day-to-day administration and operations are the responsibility of the Assistant Refuge Manager located at Lost Trail National Wildlife Refuge, Marion, MT.

Cultural Resources:

- ▶ To date, there are no known cultural resources.

Recreational Uses:

- ▶ Portions of the refuge are open to waterfowl hunting, with the majority being located north of Bog Road and along portions of Swan River.
- ▶ Big game and upland game bird hunting is prohibited. Trapping is prohibited.
- ▶ Fishing is not allowed on Spring Creek from March 1 through July 15; fishing is allowed on those portions of Swan River which flow through the refuge.
- ▶ The refuge is listed in the state Watchable Wildlife Guide and receives a number of visitors to view some of the 171 bird species and deer, elk and black bear.
- ▶ Boating is allowed through the refuge on Swan River.
- ▶ Bog Road (not maintained and not recommended for vehicles) traverses the refuge east to west. The road is open for wildlife observation, photography and provides access to the interior portion of the refuge.

Other Uses:

- ▶ Haying and grazing are conducted periodically with a Special-Use Permit for habitat management purposes.



AMERICA'S NATIONAL WILDLIFE REFUGES...

where wildlife comes naturally!

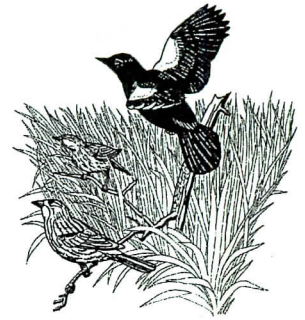
FACTS *from the National Wildlife Refuge System*

Swan River National Wildlife Refuge

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Refuge Manager

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Moiese, MT 59824

Phone: 406/644-2211
Fax: 406/644-2661
<http://bisonrange.fws.gov>



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Marion, MT 59925

Phone: 406/858-2216
Fax: 406/858-2218
E-Mail: ray_washtak@fws.gov

Location:

Located in northwest Montana, 38 miles southeast of Creston, in the Swan Valley.

Establishing Purpose:

Lands were acquired in 1973 "for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" (Migratory Bird Conservation Act, 16 U.S.C. 715-715r).

Acreage:

1,568 acres, with an additional 210-acre Forest Service inholding that is managed under a Memorandum of Understanding by the USFWS.

Landscape Characteristics:

- ▶ The refuge lies within the floodplain of the Swan River above Swan Lake and between the Swan Mountain Range to the east and the Mission Mountain Range to the west.
- ▶ The valley was formed when glacial ice poured down the steep slopes of the Mission Range into Swan Lake.
- ▶ The valley floor is generally flat but rises steeply to adjacent forested mountain sides.
- ▶ 80% of the floodplain is composed of reed canary grass and the other 20% consists of forests of old growth fir, spruce, cedar and larch. Large cottonwood trees exist along the river.
- ▶ Swan River, which once meandered through the floodplain, has been forced to the west side of the refuge by deposits of silt, leaving a series of oxbow sloughs within the refuge floodplain.
- ▶ There are no significant developments or facilities on the refuge.

Wildlife:

- ▶ Waterfowl species consist of Canada geese, mallards, cinnamon teal and common goldeneye.
- ▶ The refuge provides a nesting site for a pair of bald eagles.
- ▶ Other birds of prey frequenting the area include northern harriers, Swainson's hawks, red-tailed hawks and great-horned owls.
- ▶ Sora and Virginia Rails hide among the reeds while foraging.
- ▶ Marsh wrens, song sparrows and yellow-headed blackbirds nest and forage on the Refuge.
- ▶ White-tailed deer are the most common large mammal seen. Elk, moose, beaver, bobcat and black bear are known to inhabit the area. Other resident wildlife are coyotes, beaver, muskrat and raccoons.
- ▶ The Swan and Mission Mountain Ranges have been designated as a "habitat corridor" of the threatened grizzly bear, and bears sometimes move onto the refuge during the early spring to forage.